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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,016	11/25/2003	Astrid Elbe	S0193.0009	7527

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EXAMINER

WEINMAN, SEAN M

ART UNIT	PAPER NUMBER
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2115

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/03/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/03/2007.

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Office Action Summary

Application No.

10/724,016

Applicant(s)

ELBE ET AL.

Examiner

Sean Weinman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/14/04 4/24/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

This action is responsive to the preliminary amendment filed on 24 April 2006. *Claims 1-6 and 8-28* are presented for examination. *Claim 7* is cancelled.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15 *Claims 1-6, 8, 10-21, and 23-28* are rejected under 35 U.S.C. 103(a) as being unpatentable over Buxton et al. (US Patent No. 5,925,133) in view of Bertin et al. (US Patent No. 6,345,362).

As per claims 1 and 15, Buxton et al. teaches the claimed invention comprising:

20 a controller for processing a processor task (*Figure 1 Character reference 14 CPU Core*) and comprising:

a plurality of peripheral devices for performing associated tasks (*Figure 1 Reference characters 32 and 34*); and a central processing unit for controlling the plurality of peripheral devices (*Figure 1 Reference character 28 DMA Controller*);

25 Buxton et al. does not teach controlling the power of the system by determining the energy available to the controller as well as controlling the peripheral devices depending on the energy available to the controller and the processor task being processed. Specifically, Buxton et

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al. teaches a controller to processor to process a task and a plurality of peripheral devices that are controlled to process the associated tasks. Buxton et al. does not teach that the energy of the peripheral devices is controlled by the processor task and the energy available to the controller.

Bertin et al. teaches another system that controls power to the CPU and plurality of
5 peripheral devices that processes associated tasks. Buxton et al. teaches the claimed invention comprising:

an energy determination means for determining energy available to the controller (*Col. 9 lines 56-59 Execution Unit*); and

a control means for controlling the controller depending on the energy available to the
10 controller (*Col. 9 lines 60-67*),

wherein the, control means is disposed to control the plurality of peripheral devices in dependency on the processor task, the associated tasks and the energy available to the controller (*Col. 9 lines 44-67*).

In summary, Bertin et al. teaches a controller that determines the energy available to the
15 controller and then controls the peripheral devices of the system based on the task they are processor and the power available.

It would have been obvious to one of ordinary skill in the art to combine the teachings of Buxton et al. and Bertin et al. because they both teach systems which control the power of the a system having a plurality of peripheral devices to process associated tasks. Bertin teaches the
20 deficiency of Buxton et al. by teaching that the power available to the controller controlling the peripheral devices is determined and the power of the peripheral devices is controlled based on the associated tasks and the power available.

As per claims 2 and 16, Bertin et al. teaches the claimed invention comprising:

wherein the control means is arranged so as to control the controller such that an energy required by the controller for the processor task is essentially equal to the energy available to the controller (*Col. 10 lines 33-43*).

5 *As per claims 3 and 17*, Bertin et al. teaches the claimed invention comprising:

an energy provision means for producing the energy available to the controller from electromagnetic energy supplied externally (*Col. 13 lines 13-17*).

As per claims 4 and 18, Buxton et al. teaches the claimed invention comprising:

10 which is designed as an integrated circuit suitable for an application with contact-less terminals (*Figure 1 Reference character 10*).

As per claims 5 and 19, Bertin et al. teaches the claimed invention comprising:

a means for setting a controller clock with which the controller is operated, wherein a clock rate of the controller clock is increased when there is more energy available and decreased when there is less energy available (*Col. 9 lines 56-64*).

15 *As per claims 6 and 20*, Buxton et al. teaches the claimed invention comprising:

wherein the controller is implemented in CMOS technology (*Col. 3 lines 41-46*).

As per claims 8 and 21, Bertin et al. teaches the claimed invention comprising:

20 wherein the control means is arranged so as to control the peripheral devices such that computing time required for performance of the processor task by the controller is minimized (*Col. 2 lines 34-41 and Col. 10 lines 26-52*).

As per claims 10 and 23, Bertin et al. teaches the claimed invention comprising:

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a means for setting peripheral device clocks with which the plurality of peripheral devices are operated; and

a means for switching off individual peripheral devices of the plurality of peripheral devices (*Col. 9 lines 56-67*).

5 ***As per claims 11 and 24***, Buxton et al. teaches the claimed invention comprising:

wherein the means for setting the peripheral device clocks comprises an oscillator associated with one of the plurality of peripheral devices and produces a clock signal with an output clock frequency with which the associated peripheral device is clocked (*Col. 4 lines 49-67 and Col. 5 lines 1-5*).

10 ***As per claims 12 and 25***, Buxton et al. teaches the claimed invention comprising:

wherein the means for setting the peripheral device clocks comprises a clock multiplier associated with one of the plurality of peripheral devices and produces a clock signal with an output clock frequency with which the associated peripheral device is clocked (*Col. 4 lines 49-67 and Col. 5 lines 1-5*).

15 ***As per claims 13 and 26***, Buxton et al. teaches the claimed invention comprising:

wherein the control means comprises a first means for setting a first clock with which the central processing unit is operated, and a second means for setting a second clock with which the peripheral devices are operated, the first and second clocks being set such that the energy available suffices for processing the processor tasks and that, at the same time, the peripheral
20 devices are assigned a maximum energy possible for performing the associated tasks (*Col. 4 lines 49-67 and Col. 5 lines 1-5*).

As per claims 27 and 28, Buxton et al. teaches the claimed invention comprising:

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wherein the electronic circuit is integrated in a single chip (*Figure 1 Reference character 10*).

As per claim 14, Buxton et al. and Bertin et al. teach the claimed circuit for controlling the energy of a system as set forth in claims 1 and 15. Since Buxton et al. and Bertin et al. teach the claimed circuit, Buxton et al. and Bertin et al. teach the claimed method for operating the circuit for controlling the energy of a system.

Allowable Subject Matter

Claims 9 and 22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Weinman whose phone number is (571) 272-2744. The examiner can normally be reached on Monday-Friday from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (571) 272-3667. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Sean Weinman
Examiner
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CHUN CAO
PRIMARY EXAMINER